Date: Wed, 2 Nov 94 04:30:39 PST
From: Ham-Space Mailing List and Newsgroup <ham-space@ucsd.edu>
Errors-To: Ham-Space-Errors@UCSD.Edu
Reply-To: Ham-Space@UCSD.Edu
Precedence: List
Subject: Ham-Space Digest V94 #309
To: Ham-Space

Ham-Space Digest   Wed, 2 Nov 94   Volume 94 : Issue 309

Today's Topics:

Send Replies or notes for publication to: <Ham-Space@UCSD.Edu>
Send subscription requests to: <Ham-Space-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Space Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-space".

Date: Tue, 1 Nov 1994 09:54:59
From: n7ryw@teleport.com (William Roth)
Subject: 2M NBFM SAT - WHICH ONE?

In article <9410311820361458@kbsbbs.com> tom.alldread@kbsbbs.com (Tom Alldread)
writes:
>From: tom.alldread@kbsbbs.com (Tom Alldread)
>Subject: 2M NBFM SAT - WHICH ONE?
>Date: Mon, 31 Oct 1994 22:09:00 GMT

>Greetings All:

>   On Oct 6/94 we picked up a NBFM downlink as we were motoring
>along the transCanada highway in Manitoba.

It was AO-21 on 2 meters. Unfortunately, it was soon after turned off. For a similar satellite, try AO-27 during the day on 436.800, and the Russian Space Station MIR on 145.550.

Date: 31 Oct 94 12:38:31 -0500
From: donovan@lpopsb.mayo.edu
Subject: Any info on OSCAR-21 - is it still sick?

Hello,

I saw a post awhile back stating that
oscar-21 was sick...anyone have any follow-up
info on the bird????

Thanks,

Dave Donovan
KB0NLA

Date: 31 Oct 1994 23:14:01 -0500
From: wdunckel1@aol.com (WDUNCKEL1)
Subject: Contacting the MIR. Help!

In article <1994Oct31.195548.844@ke4zv.atl.ga.us>, gary@ke4zv.atl.ga.us (Gary Coffman) writes:

>Unfortunately, this is bad advice. An analysis of all possible passes .....etc etc etc,

Not only the above, but the Mir is curently plagued with battery problems. Although they operate their radio occasionaly, they are not able to operate on any kind of schedule. I hear that next year (with help from space shuttle maybe) they may be able to fix this problem. You may get lucky though!

Walt KD6VYV

Date: Mon, 31 Oct 1994 19:55:48 GMT
From: gary@ke4zv.atl.ga.us (Gary Coffman)
Subject: Contacting the MIR. Help!

In article <n7ryw.32.00171C3C@teleport.com> n7ryw@teleport.com (William Roth)

writes:
>In article <1994Oct31.021040.1@ntuvax.ntu.ac.sg> asirene@ntuvax.ntu.ac.sg writes:
>>   Can anyone tell me the minimum requirement to work the MIR.
>>I am using a 7/8 lambda Diamond F-22 vertical mounted on roof. Also
>>using IC-22A on 145.550 MHz with 10watts output. Is this sufficient
>>to work the MIR? The last pass we tried was about 440km nearest.
>
>The antenna is the exact opposite of what you want. The F-22 (and all gain
>verticals) get their gain by concentrating the signal toward the horizon.
>The problem is that MIR is UP, not at the horizon! Don't feel alone, when
>I worked at HRO, this would happen with someone once a day at least.
>
>Try an antenna called a "Crossed Dipole". I used one for years for MIR
>and Sarex. It points up toward the satellites. For a good description, look
>in the Satellite Experimenters Handbook for it.

Unfortunately, this is bad advice. An analysis of all possible passes
for a LEO sat shows that it will spend the majority of the time you
are in it's footprint at an angle of less than 30 degrees above the
horizon. The turnstyle over a groundplane advocated in the SEH has
a *null* at those angles. For a non-steerable antenna, a simple
quarterwave vertical works better (at least 3db better, usually more).
It has a null straight up, but the sat will spend a very short time
directly overhead, and path loss is least during that period. During
the low part of passes (below 20 degrees), a gain vertical can be very
useful. This was reported in the AMSAT Journal a few years ago, but the
SEH hasn't been updated. A better non-steerable antenna is the Lindenblad.
It offers a flattened hemispheric coverage with circular polarization.
CP is a big advantage due to spin modulation on most sats, I highly
recomend building one of these if you aren't going to be using steerable
antennas. (I haven't analyzed the new "eggbeater" style antennas, but I
expect they're better than crossed dipoles too.) The only time the crossed
dipole has the edge is in direct overhead passes. Those are relatively rare,
and the amount of time the sat is directly over any given spot is a very
short time compared to the total time you'll be in it's footprint.

Gary
--
Gary Coffman KE4ZV | You make it, | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | we break it. | emory!kd4nc!ke4zv!gary
534 Shannon Way | Guaranteed! | gary@ke4zv.atl.ga.us
Lawrenceville, GA 30244 | |

Date: Tue, 1 Nov 94 13:31:20 -0500
From: drangmei@ll.mit.edu
Subject: Keplerian data for NOAA birds

Where can I get Keplerian elements for NOAA-11, NOAA-12, NOAA-13 weather satellites on the net?

-Rick D.
(drangmei@ll.mit.edu)

Date: Tue, 1 Nov 1994 15:22:18 GMT
From: timothy@indy.net (Timothy Toroni)
Subject: Satellite frequencys

Can someone post or tell me where I can find satellite frequencys, beacon frequencys, and mode schedules?
-N9VHM

Date: 1 Nov 1994 19:36:37 GMT
From: little@iamu.chi.dec.com (Todd Little)
Subject: Satellite tracking software needed

Geoff L. Kennedy wrote:
|>   I am looking for an MS-DOS based satellite tracking program which
|>will produce a tabular prediction *text file* output for "visible" passes.
|>
|>   There is one hitch.....the output, in addition to AOS/LOS times and
|>Alt/Az info, *** MUST contain the ORBIT NUMBER for each pass. ***

The ORBIT program by N3EMO does what you want. It should be available at the various FTP sites. If not, let me know and I can send you a copy.

73,
Todd
N9MWB

Date: Tue, 1 Nov 1994 09:51:36
From: n7ryw@teleport.com (William Roth)
Subject: why are elements published for...

In article <3945e7$gmo@unet.net.com> larson@loren.net.com (Alan Larson) writes:
>From: larson@loren.net.com (Alan Larson)
>Subject: why are elements published for...
>Date: 1 Nov 1994 01:25:27 GMT

> I noticed that elements are published for ARSENE, 22828, POSAT,
>HUBBLE, GRO, and UARS.

These are mostly done automatically from lists, and I suspect that Arsene was never removed when it died. 22828 is listed because Norad keeps getting it confused with KO-25. In fact, 22828 elements are currently KO-25, but both are sent because Norad might get the problem straightened out at any time.

Posat is the same situation as Arsene. I don't know why the Observatories are in these. Maybe it is because they are easily visible at the right time?

Date: Tue, 1 Nov 1994 09:59:39
From: n7ryw@teleport.com (William Roth)
Subject: WWW and FTP available

I have put up an Amateur Satellite WWW page and FTP space. The addresses are:

Anonymous FTP-   ftp.teleport.com/users/n7ryw/

WWW Page URL- http://www.teleport.com/~n7ryw/asatpage.html

Be sure to get the " ~ "(tilde) character in the URL at n7ryw!

I have Wisp and updates, KctDrv, Wintel, and DSP-12 software, as well as some news and other stuff.
Enjoy!

Date: Tue, 1 Nov 1994 15:10:53 GMT
From: zlau@arrl.org (Zack Lau (KH6CP))

References<1994Oct31.021040.1@ntuvax.ntu.ac.sg> <n7ryw.32.00171C3C@teleport.com>,
<1994Oct31.195548.844@ke4zv.atl.ga.us>
Subject: Re: Contacting the MIR. Help!

Gary Coffman KE4ZV (gary@ke4zv.atl.ga.us) wrote:
: In article <n7ryw.32.00171C3C@teleport.com> n7ryw@teleport.com (William Roth)
writes:
: >In article <1994Oct31.021040.1@ntuvax.ntu.ac.sg> asirene@ntuvax.ntu.ac.sg
writes:
: >>   Can anyone tell me the minimum requirement to work the MIR.
                    ^^^^^^^
: Unfortunately, this is bad advice. An analysis of all possible passes
: for a LEO sat shows that it will spend the majority of the time you

: are in it's footprint at an angle of less than 30 degrees above the

Gary's inappropriate and lengthy analysis deleted.

Gary's analysis makes sense if you are interested maximizing the
time you can work MIR, as opposed to just working them once.

Advantages of the MIR overhead:
   Minimum path loss--shortest distance, fewer obstructions
   Good possibility of low background noise
   If you are in Hawaii or someplace similar
       the competition is out of range.
   Minimal doppler

--
Zack Lau KH6CP/1
Internet: zlau@arrl.org

2 way QRP WAS
8 States on 10 GHz
10 grids on 2304 MHz

End of Ham-Space Digest V94 #309
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